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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/539,394	03/31/2000	James Paul McCarthy	199-1452	9656

28395 7590 12/31/2003
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EXAMINER

AVERY, BRIDGET D

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/539,394

Applicant(s)

MCCARTHY, JAMES PAUL

Examiner

Bridget Avery

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Information Disclosure Statement filed by applicant on September 22, 2003 is acknowledged and has been entered.

Claim Objections

2. Claim 7 is objected to because of the following informalities: the term "type" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5-8 and 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Sherman (US Patent 5,258,651).

Sherman teaches an apparatus for use with a vehicle including an engine (20) which operates at a first speed, the apparatus being effective to control the first speed and including: a motor/generator (14) including a stator assembly (50) and a rotor assembly (46) which is operatively coupled to the engine (20), the generator (14) being effective to selectively provide a first torque through the rotor assembly (46), the torque being effective to control the first speed; a power transfer unit (10, 28) interconnecting

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the engine (20) and the motor/generator (14), the power transfer unit (10, 28) being configured to receive torque from the engine (20) and the motor/generator (14), and to deliver torque to drive the vehicle; and a clutch hydraulic assembly (34) coupled to a source (84) of pressurized fluid and having at least one friction plate/disc (92, 94) fixedly coupled to the vehicle and rotationally stationary and at least one divider plate (102) coupled to the rotor assembly (46) and which selectively and frictionally engages the at least one friction plate/disc (94) effective to provide a second torque through the rotor assembly (46), the second torque being effective to augment the first torque, thereby further controlling the first speed, as taught in column 5, lines 48-58, and where the clutch assembly (34) is disposed on a hub portion (76, 78) of the generator (14), located to allow full torque transfer between the engine (20) and the power transfer unit (10, 28), as taught in column 3, lines 7-11, when the clutch assembly (34) is engaged. The apparatus including a controller (clearly shown in Figure 2 and discussed in column 3, lines 60-65 and column 5, lines 7-14) which is communicatively coupled to the generator (14), to the engine (20), and to the clutch assembly (34), the controller being effective to determine an amount of reaction torque required to control the first speed, and based upon the amount of reaction torque, to cause the motor/generator (14) and the clutch assembly (34) to cooperatively provide the reaction torque. The motor/generator (14) is coupled to the engine (20) by use of a planetary gear set (12). The motor/generator (14) and the engine (20) are arranged in a power-split configuration. See also column 3, lines 48-51, column 4, lines 26-40 and column 5, lines 15-22. With respect to claims 14-19, the method for controlling the speed of an

engine, which includes selectively activating the generator to produce a negative torque and selectively and frictionally engage a rotor assembly to lower the speed of the engine, is also anticipated by Sherman.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman ('651) in view of Sumi (US Patent 6,054,776).

Sherman teaches the features described above.

Sherman lacks the teaching of a valve assembly.

Sumi teaches a valve assembly (36a).

Based on the teachings of Sumi, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the apparatus of Sherman to include a valve assembly to provide a conventional hydraulically operated clutch assembly.

5. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman ('651) in view of Ito et al. (US Patent 3,646,835).

Sherman teaches the features described above and further teaches a piston (98). See column 4, lines 4-12.

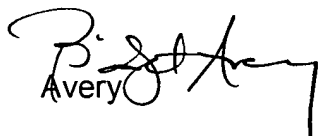
Sherman lacks the teaching of a drum.

Ito et al. teaches a control system including a clutch with a drum (27).

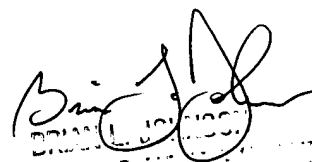
Based on the teachings of Ito et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the apparatus of Sherman to include a drum to form a substantially closed assembly which is suitable for exposed operation in the same chamber with other moving components of the apparatus.

Conclusion

6. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 703-308-2086.


Avery

December 11, 2003


BRIDGET AVERY
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12/15/03